

ADVANCING ANIMAL DISEASE TRACEABILITY ROAD MAP FOR ARKANSAS

A Three-Year Plan

Fiscal Year: 2020-2022

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I. EXECUTIVE SUMMARY

Animal Agriculture is the leading component of Arkansas' economy. Cattle and poultry production are the two primary animal agriculture contributors, swine, small ruminant and equine industries are also key commodities. The Arkansas Livestock and Poultry Commission's (ALPC) key function is to prevent disease introduction and be prepared to respond to disease challenges when it occurs. Key elements are the ability to identify and trace animals. ALPC has made progress, but there remain challenges to implementation of a reliable ADT system that encompasses all species of concern. The primary challenges are to ensure that animals moving interstate are officially identified and known where to have been moved, capture the data associated with identification and any movements, and facilitating rapid retrieval of ADT data. Critical elements of this road map include: Traceability performance measures, distribution and administration of National Uniform Eartag System (NUES) tags, coming Radio Frequency Identification Devices (RFID) and other official identification (ID) devices, data sharing, outreach, monitoring and reporting of interstate movement activity, and traceability implementation priorities. Successful implementation of this plan should result in a rapid response to program diseases, facilitate continuity of business for affected commodities, Arkansas producers in the event of a disease outbreak, and enhanced compliance with federal and state ADT rules.

II. CURRENT TRACEABILITY SITUATION

2.1 Who are we?

This roadmap is prepared and is to be implemented by ALPC, the animal disease control and animal emergency response agency for Arkansas. Traceability data is often used for disease traces, lost or stolen animal inquiries and other investigations as needed. ALPC personnel critical to the success of ADT include the Deputy Director, the State Veterinarian, the Assistant State Veterinarian/NPIP Administrator, the ADT Program Coordinator, and the ADT Assistant Program Coordinator. ALPC has a commission that consists of seven public members appointed by the Governor that advise agency personnel. ALPC maintains an Animal Disease Traceability Working Group composed of ALPC, USDA APHIS VS, Livestock Market, and producer representatives to provide input and feedback on the implementation of ADT. The current working group includes the following members:

Randolph Chick, DVM	State Veterinarian
Blake Walters	AR ADT Program Coordinator
Patrick Fisk	Director, ADA-ALPC
Becky Brewer-Walker, DVM	AD USDA APHIS VS
Cody Burcham	Arkansas Cattlemen's Association
Jerry Masters	Arkansas Swine Producers
OPEN	Member-At-Large
Heidi Ward, DVM	University of Arkansas Cooperative
Terry Chapman	Livestock Marketing Association
Darrell Ford	Hope Livestock Market
Andrea Andrews	NPIP Coordinator - Arkansas ADA

2.2 Where are we now?

Animal disease traceability as a critical component of the overall animal health program. We have transitioned from testing cattle for Brucellosis to facilitating compliance with the USDA ADT rule by ALPC employees recording traceability data of the livestock at livestock markets. This transition along with continuing to offer and encourage on the farm Brucellosis vaccination has facilitated identification of a large number of breeding cattle likely to remain in the state. Current focus is on implementation of electronic identification at a select number of markets to evaluate the advantages for ALPC staff and market interests.

ALPC strives to continue enhancing our capabilities to electronically record and transmit ADT data in the field. Current handheld devices are outdated, and data generated must be manipulated prior to uploading into CoreOne/SCS.

Goal is to have Microsoft capable laptops and RFID readers widely available in the field for use in all markets to allow electronic recording of ADT data; this capability will allow data to be uploaded directly into CoreOne/SCS with minimal manipulation. The Grant given to Arkansas associated with the 2020 ADT “Add-On” proposal will allow us to greatly expand the availability of RFID reading devices.

ALPC administrative staff dedicated to ADT has been increased (due to fill of a long term vacancy and a newly created position). We currently have two full time administrative staff supporting ADT data compilation. A very knowledgeable administrative staff position is held part-time to coordinate ADT efforts and traceback capabilities for Arkansas ADT.

A key component in implementation of ADT is expanding the traceability technology infrastructure to support ADT, which includes the following:

- CoreOne/SCS – used as a database for bovine and swine disease monitoring programs and program disease work (TB, Brucellosis, etc.). This includes uploading all VS Form 4-54 (paper or electronic), VS Form 4-26, and VS Form 4-33 data into CoreOne/SCS. We are nearing goals of sharing electronic CVI data and data generated by the ALPC CVI Imaging System with CoreOne/SCS. TraceFirst programs have assisted in this effort.
- ALPC Certificate of Veterinary Inspection (CVI) Imaging System (Papervision) – incoming and outgoing CVIs are scanned and logged into an imaging system housed at ALPC. The previous limitations on searchability have been addressed by spreadsheet management designed and maintained by a full-time staff position overseeing the added functions of CVI compliance and Quarantine Action tracking.
- USDA APHIS VS animal disease traceability information systems
 - Standardized Premises Identification System (SPIS)
 - Animal Identification Number Management System (AIMS)
 - StateVet (Trace First)
 - CoreOne
 - Increasing capabilities in EMRS, NAHMS, NAHRS.

2.3 Strengths and Weaknesses

The primary strength for ADT in Arkansas is the thirty-plus ALPC field livestock inspectors (LSI). LSI are at livestock markets on sale days identifying animals and recording established identification devices. An added attribute is the working relationship between USDA APHIS VS and ALPC field personnel and administrative cooperation. The Arkansas Survey Herd program (swine registration) and NPIP Live Bird Market Surveillance (LBMS) provide a framework for monitoring those animal populations at risk.

A former weakness for ALPC in regard to ADT was dedicated IT staffing; new minds have recently improved functionality and demonstrate a dedication to the needs of our agency. Emphasis in the short-term is cross training of administrative staff to improve reliability and timeliness of electronic capture and transmission of ADT data. Further development of compatible IT applications and equipment will enhance efficient data entry and foster ADT transparency and fuller access. A NPIP “streamlining” project is in development at the time of writing this document.

2.4 Opportunities and Threats

Cow-calf beef and poultry production are leading animal agriculture commodities in Arkansas. Arkansas ranks in the Top 20 for cattle production and in the Top Five in most categories of poultry production (per NASS statistics). An animal disease event in these two groups could have a significant impact on the state’s economy. ALPC is tasked as the lead agency in responding and mitigating impact of animal diseases and natural disasters that would affect animal agriculture. An efficient ADT program is essential to timely response and a critical element in fulfilling this responsibility. Successful implementation of this plan will potentially save thousands of animals and mitigate the overall economic impact that disease threats have on producers and the state.

2.5 Inventory of existing infrastructure and suitability assessment

Personnel:

ALPC has experienced and knowledgeable employees on staff. We currently (2020) have a total of thirty inspectors dispersed throughout the state for routine surveillance tasks and on-demand mediation efforts. The state is currently divided into three regions; each region has an assigned supervisor responsible for management of personnel and activities within that respective region. The field supervisors report to the Livestock Supervisor/ADT Program Coordinator stationed in Little Rock. The primary functions of field staff include maintaining a presence at each federally approved livestock market on sale day, identifying and recording ADT data for cattle and other species presented for sale at the market, assisting any available market veterinarian in obtaining information for issuance of ICVIs, vaccination of replacement heifers for Brucellosis, and ensuring compliance with other applicable state regulations. ALPC’s current field staffing is sufficient in regard to the implementation of ADT in Arkansas.

We anticipate future challenges and modifications to the present supervision structure due to the retirement of several of the most experienced employees (2020).

The State Veterinarian and Livestock Inspector Supervisor/ADT Program Coordinator play critical roles in implementation of the Arkansas ADT Program by coordinating ALPC staff and correlating with USDA APHIS VS. We have an administrative staff of three full time employees who record, scan, and file ICVIs, test charts, EIA test charts, and market reports in addition to other duties. A half-time position supports PIN assignments, traceback exercise expertise, and the various disease reporting functions for state and federal programs. In addition, two full-time staffers support the NPIP program exclusively.

The ADT data (market charts, test charts, ICVIs, etc.) have primarily been received in hardcopy format (as of 2019). We are nearing 100% for all market reports being electronically transferred (improves timeliness); market charts and test charts are eventually entered into CoreOne/SCS. The ICVIs are scanned and logged into an imaging system (Papervision) to make those documents electronically searchable via multiple data entry points. Electronic CVI submission is nearing 40% (Spring 2020); goal is 75% by this time next year.

Capabilities::

The current ALPC field staff is adequate in meeting current demands of ADT. The administrative staffing has recently risen to meet current data entry requirements. As we fully transition to electronic data formats with immediate entry into the respective databases, any perceived need for additional personnel should dissipate.

Data processing/ Storage:

ALPC's server is a Windows 2008R2 server with dual six-core Intel Xeon processor at 3.47GHz with 128GB of ram, and 5 TB of storage. Data is captured in the field by handheld computers and then transmitted via the internet back to the server.

Suitability:

The hardware and software updates for use by ALPC personnel is proving to be more than sufficient for the purposes of ADT; newer laptops, smartphones with "hotspot" capability and improved broadband access to our servers are recent advances.

III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

3.1 Vision Statement

Arkansas Livestock and Poultry Commission is focused on rapid response and mediation leading to eradication of animal disease challenges; this encompasses the inspection of livestock and poultry in the state, as well as surveillance of areas of livestock and poultry concentration. A key component in mitigating the impact of animal disease is the ability to rapidly identify and trace animals through their various touchpoints. ALPC embraces the task

and strives to implement functional and efficient efforts for the ADT program and progress.

3.2 Mission Statement

To safeguard human and animal health, assure food safety and quality, and promote Arkansas livestock and poultry industries for the benefit of our citizens.

Goals:

1. Protect human and animal health from communicable animal diseases.
2. Protect humans and animals from environmental and toxicological threats.
3. Protect consumers by ensuring food safety and quality.
4. Promote and enhance marketability of livestock, poultry, and their products both nationally and internationally.

IV. TRACEABILITY REQUIREMENTS

4.1 Strategic goal

ALPC is operating a state-wide infrastructure for ADT that proves to be compatible with the USDA standards established in the Traceability Rule. A primary objective is to manage a system that identifies animals accurately, enables rapid traceability of animals, and is fully functional in the event of an animal disease outbreak. The implementation of such a system is to enhance the effectiveness of animal disease response in Arkansas and mitigate the negative impacts of disease on industry producers. ALPC is working to build an infrastructure that will interact with other all needed entities in accordance with standards.

4.2 Programmatic goals (Objectives)

- FY 2019 – DONE - integrate CoreOne/SCS with other electronic databases.
NOMINAL increase in use of e-CVIs by Veterinarians.
Extensive outreach and education efforts were accomplished.
ACQUIRED funds to update handheld devices in use at Livestock Markets.
READIED for distribution of Official RFID devices to producers.
- FY 2020 – Increase use of eCVIs by Veterinarians (goal 75% of all filed).
Facilitate utilization of RFID tags and the use of EMRS & MIMS.
ALL VS 4-54 submitted electronically from livestock markets.
- FY 2021 – Maintain goal of 75% of CVIs submitted in electronic format.
Increase utilization of RFID at markets and distribution to Producers.
Transition to “all electronic” recording and ADT data collected.

- 4.3 Animal disease traceability performance measures:
 ALPC will continue to perform trace exercises in coordination with USDA APHIS VS staff to assess capabilities in regards to the Trace Performance Measures.

Trace Performance Measures (TPM):

Determines the State/Tribe in which the animal was officially identified and notifies that State/Tribe of the reference animal's official ID number	State/Tribe that received the reference animal	95% notification within 1 business day
Confirms that it has documentation that an official ID number was issued within its jurisdiction and that it has contact information for the person who received that number.	State/Tribe where the reference animal was officially identified.	<i>Initial-</i> 75% within 5 business days <i>Future-</i> 95% within 2 business days
Determines the State or Tribe from which the animal was moved interstate into its jurisdiction and notifies that State or Tribe of the reference animal's official ID number	State/Tribe that received a reference animal	<i>Initial-</i> 95% within 7 business days <i>Future-</i> 95% within 3 business days
Determine the address or location from which the reference animal was shipped	State/Tribe that receives notification that a reference animal moved interstate from its jurisdiction (may be the same State/Tribe in #2)	<i>Initial-</i> 75% within 5 business days <i>Future-</i> 95% within 2 business days

4.3 Data requirements

a. Standards for Official Identification:

The following is a list of standards for Official Identification by species:

Bovine: Official ear tags (NUES) or Tattoos when accompanied by the breed registration certificate.

Ovine/Caprine: Official ear tags (i.e. Flock, Scrapie or AIN tags) or registration tattoos accompanied by the registration certificate.

Equine: Description sufficient to identify the animal, Electronic Identification (ISO 11784/11785 only after 03/11/2014, Digital photographs sufficient to identify the animal.

Swine: Official ear tags (NUES, ASH Premises tags) with unique herd management number, or tattoos (as allowed by the ADT rule).

Poultry: NPIP approved devices or methods.

b. Official ID Distribution and Record Keeping:

Official ID devices are currently distributed by ALPC to Accredited Veterinarians and LSIs. ID devices are assigned by number; distribution of official IDs by ALPC is maintained via Excel spreadsheet and forwarded to USDA APHIS VS AIC for entry into AIMS. As records of official ID application are received, these records are processed and entered into CoreOne/SCS.

The significance of producer demand will be evaluated to determine how best to move forward with the distribution of official IDs to producers. RFID is favored going forward; ALPC will promote use of electronically recordable identification devices.

Approved forms for interstate movement: ICVI, VS 9-3 NPIP, NPIP 90 Day Certificate, NPIP flock certifications, VS 1-27, e-ICVI. The Equine Interstate Movement Passport has been removed from list.

c. Sharing data with other states:

All ICVIs issued within Arkansas will be forwarded to the receiving state electronically unless otherwise requested by the respective state. Data that is entered into the Arkansas database will be retrieved and provided to other entities and the USDA **upon request**. Current IT structure does not allow outside access to Arkansas databases.

4.3 Information technology plan:

ALPC has been in the process of providing Microsoft capable laptops to all LSIs.

The attainment of this goal will enhance the ability to enter ADT data into the respective databases. ALPC's IT department is working to maintain a sound and secure system to support ADT.

4.6 Resource requirements

ALPC has in place a continuity of operation plan (ACOOOP – not yet “real-world” tested). The Arkansas River Valley flood event of 2019 served to iron out surmountable operational wrinkles in our emergency response management. Work related to improving the process for the automated data capture from paper CVIs has been addressed; we have a workable system but a smoother procedure is needed.

4.7 Organizational needs

The Arkansas Department of Agriculture (ADA) and ALPC is in the process of cross-training available administrative personnel to ensure timely data entry.

4.8 Executive support

ALPC management executives have been educated and are cognizant of the critical nature of ADT regarding necessary compliance with rules and regulations (as well as need for effective response to animal disease challenges). We will continue our agency efforts for increasing ADT capabilities and efficiencies in Arkansas.

4.8.1 Coordination and oversight procedures

ALPC has well established statutory authority for the suppression and eradication of animal diseases in the state of Arkansas. Functional implementation of ADT is foremost in the toolbox for use in animal disease response. ALPC makes every effort to outreach and coordinate with commodity producer groups and allied governmental agencies in regard to implementation and oversight use of ADT.

4.8.2 Staffing

The ADA executive suite has been made aware of challenges. To date, administrative staff have accomplished necessary data processing to help address any potential negative impact on our ADT functionality. The transition to ALL electronic records will allow us to gain efficiencies in data entry and greater value to the ADT system.

4.8.3 Budget requirements

Budgets for current staff and resources are a combination of federal (ADT Cooperative Agreement Grant) and state (General Revenue) funds. Decreases in either of these funding sources have significant impact on ADT system operations.

4.8.4 Outreach

ADT success will rely on ALPC efforts in continuance of current education and outreach to stakeholders and commodity groups in Arkansas. Education and outreach will consist of the following at a minimum:

Accredited veterinarians are vital public interface link for the ADT program:

- ICVIs correct and processed for achievement of Traceability Performance Standards.
- ALPC will inform veterinarians of needed ADT information via the ALPC website, Arkansas State Veterinarian's Quarterly Update, Arkansas Veterinary Medical Association (ARVMA) meetings and newsletters, ARVMA annual convention, and ADA newsletter distribution lists.
- Continuing education is offered once annually regarding traceability to some degree at the ARVMA annual convention. ALPC and USDA APHIS VS have one full morning and afternoon dedicated to regulatory topics.
- Enhance use of e-CVIs and MIMS; ALPC in coordination with USDA APHIS VS will emphasize use and provide instruction to veterinarians on options for transmitting data electronically.

Livestock markets:

Outreach and education efforts will continue with the Arkansas Livestock Market Association. These efforts include attending the Arkansas Livestock Market Association annual meeting and individual market visits throughout the year.

Industry as a whole:

The ADT advisory group will provide recommendations for outreach and education to the industry. Coordination with the University of Arkansas Cooperative Extension Service, press releases, webpages, ALPC e-mails, industry association meetings, producer group meetings, and social media sources are some methods to consider where available. The primary focus of this effort will be the bovine, and to a lesser extent the small ruminant industries.

4.8. Monitoring and reporting interstate movement activity

Movement of animals into and out of the state is monitored and reported on a regular basis (weekly activity summaries). Accomplishment is via scanning and tracking of ICVI's (paper and electronic) received by ALPC. The applicable data is also summarized monthly.

V. TRACEABILITY IMPLEMENTATION

5.1 Ranking of priorities for advancement

- Enhancement of IT infrastructure.
 1. IT staff engagement and development
 2. Laptops and mobile phone based "hotspots" for Livestock Inspectors.
 3. Evaluate software needs as needed.
- Increase use of electronic forms/data
 - 1.e-CVI
 - 2.VS 4-54
 - 3.OCV charts

- Timely data entry into appropriate data storage systems
 1. CoreOne/SCS
 2. ALPC Imaging System (Paper Vision)
 3. e-ICVI
 4. ICVI spreadsheet systems
 - Education and Outreach
 1. Accredited Veterinarians
 2. Livestock Markets
 3. Producer Groups
 - Improve and maintain ID eartag distribution record keeping system
 - Utilize any potential for sharing e-data across multiple platforms.
- 5.2 Develop and enable administrative staff for ease of entry of data into the CVI Papervision system, AIMS, EMRS and CoreOne/SCS.

5.3 Implementation of objectives

Maintain adequate funding and resources (personnel, read equipment) critical to the fulfillment of the ADT goals and objectives.

Summary below - annualized plans in regard to implementation of objectives:

FY 2019:

1. Coordinate with USDA APHIS VS and CoreOne/SCS experts in regards to the feasibility of integrating the databases currently in use (i.e. CoreOne/SCS and ALPC Imaging System).
2. Increase education and outreach efforts with veterinarians in the use of e-ICVIs.
3. Update/expand use of electronic devices in use at Livestock Markets.

FY 2020:

1. Continue education outreach efforts with all accredited veterinarians in regards to the use of eICVIs.
2. Advocate for RFID usage in target livestock markets.
3. Promote the use of RFID tags and MIMs at markets and private veterinarians and producers.
4. Convert VS 4-54's and vaccination charts filled by ALPC inspectors into e-format.

FY 2021:

1. Continue to facilitate the use of eCVIs by Arkansas veterinarians. The goal is have at least 75% of the ICVIs that originate in Arkansas to be in electronic format in FY 2021.
2. Continue RFID and MIMS education and outreach with veterinarians and producers.
3. Offer RFIDs directly to Arkansas producers.
4. Complete electronic recording and transmission of ADT data collected by ALPC

personnel.

Grants – USDA ADT – AR Roadmap 2020 - RJC